

03500.016239



PATENT

*Cofe*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: )  
: Examiner: Herbert J. Lilling  
TAKESHI IMAMURA ET AL. )  
: Art Unit: 1651  
Appln. No.: 10/084,172 )  
:   
Filed: February 28, 2002 )  
:   
For: NOVEL POLYHYDROXYALKANOATE )  
CONTAINING UNIT WITH )  
PHENYLSULFANYL STRUCTURE IN )  
THE SIDE CHAIN, PROCESS FOR ITS )  
PRODUCTION, CHARGE CONTROL )  
AGENT, TONER BINDER AND TONER :  
WHICH CONTAIN NOVEL )  
POLYHYDROXYALKANOATE, AND )  
IMAGE-FORMING METHOD AND )  
IMAGE-FORMING APPARATUS )  
WHICH MAKE USE OF THE TONER )  
:   
U.S. Patent No.: 7,045,321 B2 )  
:   
Issued: May 16, 2006 ) October 2, 2006

**Certificate**  
**OCT 05 2006**  
**of Correction**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF CORRECTION UNDER RULE 1.322

Sir:

It is respectfully requested that a Certificate of Correction be issued by the  
Patent and Trademark Office under Title 37 C.F.R. § 1.322 due to numerous errors which

**OCT 10 2006**

appear in the printed patent as a result of Patent and Trademark Office mistakes. A Certificate of Correction form, in duplicate, is enclosed for the convenience of the Office.

The subject patent was issued in which the text of specification page 16, line 12 to specification page 224, line 21 was completely omitted during printing. In lieu thereof the Office erroneously printed Column 6, line 31 to Column 68, line 39 of U.S. Patent No. 6,777,153. In addition the Office erroneously reprinted the Abstract of the Disclosure of U.S. Patent No. 6,777,153 instead of the instant Abstract of the Disclosure. Finally, Figs. 1-10 of the '153 Patent should be replaced with Figs. 1-26 of the present application.

It is believed this error arose because the Office scanned two different specifications in the instant filewrapper and failed to delete the improper specification. The Examiner in charge of the subject application issued an Official Communication on December 2, 2003 which states that two different sets of specifications were present in the instant filewrapper. The undersigned was advised by the Examiner that this error would be corrected. However, apparently the error remained.

Patentees' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Peter Saxon", written over a horizontal line.

Peter Saxon  
Attorney for Patentees  
Registration No. 24,947

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200  
591489v1

OCT 10 2006

Staple  
Here  
Only!

PRINTER'S TRIM LINE

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON COVER PAGE AT (54) TITLE OF THE INVENTION

“POLYHYDROXYALKANOATE CONTAINING UNIT WITH  
PHENYLSULFANYL STRUCTURE IN THE SIDE CHAIN, PROCESS FOR  
ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BINDER AND  
TONER WHICH CONTAIN NOVEL POLYHYDROXYALKANOATE,  
AND IMAGE-FORMING METHOD AND IMAGE-FORMING  
APPARATUS WHICH MAKE USE OF THE TONER”

should read

--NOVEL POLYHYDROXYALKANOATE CONTAINING UNIT WITH  
PHENYLSULFANYL STRUCTURE IN THE SIDE CHAIN, PROCESS FOR  
ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BINDER AND  
TONER WHICH CONTAIN NOVEL POLYHYDROXYALKANOATE,  
AND IMAGE-FORMING METHOD AND IMAGE-FORMING  
APPARATUS WHICH MAKE USE OF THE TONER--.

COLUMN 1

Line 17, “proudcng” should read --producing--;

Line 18, “prdouce” should read --produce--;

Line 44, “polyemrs” should read --polymers--;

Line 53, “know” should read --known--; and

Line 58, “strucutre” should read --structure--.

MAILING ADDRESS OF SENDER:

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page

Form PTO 1050 (Rev. 3-82)

591489v1

OCT 10 2006



Staple  
Here  
Only!

PRINTER'S TRIM LINE

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 2 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 2

Line 16, "the" should read --the aid of--; and

Line 30, "macromolecuels," should read --macromolecules,--.

COLUMN 3

Line 44, "cells," should read --calls,--;

Line 48, "bruch" should read --brush--;

Line 49, "foruth" should read --forth--; and

Line 53, "an" should read --aid of an--.

COLUMN 4

Line 5, "are dye" should read --azo dye--;

Line 10, "dibutylin" should read --dibutyltin--; and "toners" should read --Toners--;

Line 16, "metla" should read --metal--;

Line 22, "ar eto" should read --are to--; and

Line 23, "contorl" should read --control--.

COLUMN 5

Line 5, "8-17964" should read --No. 8-179564--;

Line 17, "syntehsis" should read --synthesis--; and "hwihc" should read --which--;

Line 39, "adn" should read --and--;

Line 50, "properites" should read --properties--;

Line 56, "applciation" should read --application--; and

Line 63, "disclose" should read --discloses--.

MAILING ADDRESS OF SENDER:

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page

Form PTO 1050 (Rev. 3-82)

591489v1



OCT 10 2006

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 3 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

## COLUMN 6

Line 7, "characterised" should read --characterized--; and

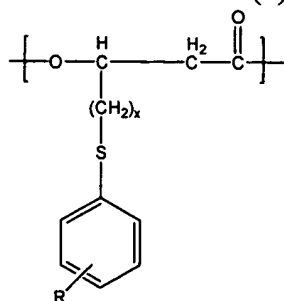
Line 30, "te" should read --the--; and

Delete line 31, to Column 68, line 59 and insert the text at Specification page 16, line 12 to page 224, line 21.

## ABSTRACT

Delete the Abstract at (57) and insert:

--A polyhydroxyalkanoate is disclosed which has in the molecule a unit represented by Chemical Formula (1).



wherein R is arbitrarily selected from a hydrogen atom, a halogen atom, CN, NO<sub>2</sub>, COOR', SO<sub>2</sub>R'', CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C(CH<sub>3</sub>)<sub>2</sub>H and C(CH<sub>3</sub>)<sub>3</sub>; where R' is H, Na, K, CH<sub>3</sub> or C<sub>2</sub>H<sub>5</sub>, and R'' is OH, ONa, OK, a halogen atom, OCH<sub>3</sub> or OC<sub>2</sub>H<sub>5</sub>; and x is an integer arbitrarily selected from 1 to 8; with the proviso that a polyhydroxyalkanoate is excluded which has a hydrogen atom as R and x in all the units is 2 or 4. Also disclosed is a process for producing the polyhydroxyalkanoate by the use of a

MAILING ADDRESS OF SENDER:

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page

OCT 10 2006

Form PTO 1050 (Rev. 3-82)

591489v1



Staple  
Here  
Only!

PRINTER'S TRIM LINE

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 4 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

microorganism having the ability to produce the polyhydroxyalkanoate and accumulate it in the bacterial body.--.

FIGS. 1-10 should be deleted and replaced with FIGS. 1-26 of the present application.

**MAILING ADDRESS OF SENDER:**

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page

Form PTO 1050 (Rev. 3-82)

591489v1

OCT 10 2006/ ➡

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON COVER PAGE AT (54) TITLE OF THE INVENTION

"POLYHYDROXYALKANOATE CONTAINING UNIT WITH  
PHENYLSULFANYL STRUCTURE IN THE SIDE CHAIN, PROCESS FOR  
ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BINDER AND  
TONER WHICH CONTAIN NOVEL POLYHYDROXYALKANOATE,  
AND IMAGE-FORMING METHOD AND IMAGE-FORMING  
APPARATUS WHICH MAKE USE OF THE TONER"

should read

--NOVEL POLYHYDROXYALKANOATE CONTAINING UNIT WITH  
PHENYLSULFANYL STRUCTURE IN THE SIDE CHAIN, PROCESS FOR  
ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BINDER AND  
TONER WHICH CONTAIN NOVEL POLYHYDROXYALKANOATE,  
AND IMAGE-FORMING METHOD AND IMAGE-FORMING  
APPARATUS WHICH MAKE USE OF THE TONER--.

COLUMN 1

Line 17, "proudcng" should read --producing--;

Line 18, "prdouce" should read --produce--;

Line 44, "polyemrs" should read --polymers--;

Line 53, "know" should read --known--; and

Line 58, "strucutre" should read --structure--.

MAILING ADDRESS OF SENDER:

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
per page

OCT 10 2006





UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 2 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 2

Line 16, "the" should read --the aid of--; and

Line 30, "macromolecuels," should read --macromolecules,--.

COLUMN 3

Line 44, "cells," should read --calls,--;

Line 48, "bruch" should read --brush--;

Line 49, "foruth" should read --forth--; and

Line 53, "an" should read --aid of an--.

COLUMN 4

Line 5, "are dye" should read --azo dye--;

Line 10, "dibutylin" should read --dibutyltin--; and "toners" should read --Toners--;

Line 16, "metla" should read --metal--;

Line 22, "ar eto" should read --are to--; and

Line 23, "contorl" should read --control--.

COLUMN 5

Line 5, "8-17964" should read --No. 8-179564--;

Line 17, "syntehsis" should read --synthesis--; and "hwihc" should read --which--;

Line 39, "adn" should read --and--;

Line 50, "properites" should read --properties--;

Line 56, "applciation" should read --application--; and

Line 63, "disclose" should read --discloses--.

MAILING ADDRESS OF SENDER:

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page



UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 3 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 6

Line 7, "characterised" should read --characterized--; and

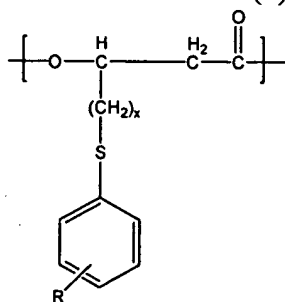
Line 30, "te" should read --the--; and

Delete line 31, to Column 68, line 59 and insert the text at Specification page 16, line 12 to page 224, line 21.

ABSTRACT

Delete the Abstract at (57) and insert:

--A polyhydroxyalkanoate is disclosed which has in the molecule a unit represented by Chemical Formula (1).



wherein R is arbitrarily selected from a hydrogen atom, a halogen atom, CN, NO<sub>2</sub>, COOR', SO<sub>2</sub>R'', CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C(CH<sub>3</sub>)<sub>2</sub>H and C(CH<sub>3</sub>)<sub>3</sub>; where R' is H, Na, K, CH<sub>3</sub> or C<sub>2</sub>H<sub>5</sub>, and R'' is OH, ONa, OK, a halogen atom, OCH<sub>3</sub> or OC<sub>2</sub>H<sub>5</sub>; and x is an integer arbitrarily selected from 1 to 8; with the proviso that a polyhydroxyalkanoate is excluded which has a hydrogen atom as R and x in all the units is 2 or 4. Also disclosed is a process for producing the polyhydroxyalkanoate by the use of a

MAILING ADDRESS OF SENDER:

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page



Staple  
Here  
Only!

PRINTER'S TRIM LINE

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,045,321 B2

DATED : May 16, 2006

INVENTOR(S) : TAKESHI IMAMURA ET AL.

Page 4 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

microorganism having the ability to produce the polyhydroxyalkanoate and accumulate it in the bacterial body.--.

FIGS. 1-10 should be deleted and replaced with FIGS. 1-26 of the present application.

**MAILING ADDRESS OF SENDER:**

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
(212) 218-2100 - Telephone  
(212) 218-2200 - Facsimile

PATENT NO. US 7,045,321 B2

No. of add'l. copies  
@ 30¢ per page

Form PTO 1050 (Rev. 3-82)

591489v1



OCT 10 2006